

REMARKS

Claims 1-18, 24, 27, 29, 31 and 41 are canceled and new claims 42-61 are added. New claims 42-53 are supported by the specification and claims as originally filed, including, original claim 4, 9, 13, 14, 15, 17, 18, and the original specification, including, at page 13-17. No new matter is added and entry of the amendment is respectfully requested.

Applicants hereby affirm the election of the invention of Group II.

I. Objections to the Specification

The Specification is objected to for the alleged inconsistent manner in which amino acid substitutions are referenced on page 5. The Examiner notes that the nomenclature to be used when defining mutations, namely, original amino acid(s):position(s):substituted amino acid(s), is not followed on page 5. Appropriate correction has been made.

The Specification has also been objected to on page 13, lines 10-13, for use of the term "hydrophibicity" instead of "hydrophobicity." Appropriate correction has been made.

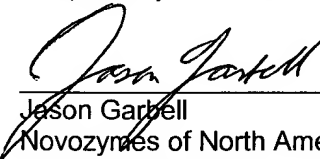
II. Claim Rejections-35 U.S.C. §102

Claim 18 stands rejected under 35 USC §102(b) as allegedly anticipated by Svendsen et al. (WO 96/23874), for the reasons set forth in the Office Action (paper no. 9).

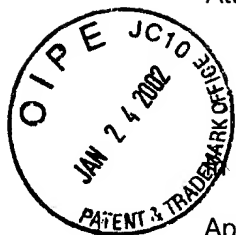
The amended set of claims are directed towards nucleic acids encoding alpha-amylases having at least 60% identity to SEQ ID NO:4, and having alterations in specified positions. Svendsen et al. does not disclose the nucleic acid sequences as claimed. Applicants respectfully request reconsideration and withdrawal of the rejection.

Respectfully submitted,

Date: November 5, 2001



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Svendsen et al.

Application No.: 09/441,313

Group Art Unit: 1652

Filed: November 16, 1999

Examiner: Hutson, R

For: Alpha-amylase variants

MARKED-UP VERSION UNDER 37 C.F.R. 1.21:

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Please enter the following amendments:

IN THE SPECIFICATION:

On page 5, line 4-7, the specification has been amended as follows:

--According to this nomenclature, for instance the substitution of alanine for asparagine in position 30 is shown as:

[Ala30Asn or A30N] Asn30Ala or N30A--

On page 5, lines 21-27, the specification has been amended as follows:

--Multiple mutations are separated by plus signs, i.e.:

Ala30Asp + Glu34Ser or A30N+E34S

representing mutations in positions 30 and 34 substituting alanine and glutamic acid for asparagine and serine, respectively. Multiple mutations may also be separated as follows, i.e., meaning the same as the plus sign:

[Ala30Asp/Glu34Ser or A30N/E34S] Asp30Ala/Ser34Glu or N30A/S34E--

On page 13, the paragraph of lines 6-13 has been amended as follows:

--The present invention relates to a variant of a parent Termamyl-like α -amylase, which variant α -amylase has been altered in comparison to the parent α -amylase in one or more solvent exposed amino acid residues on the surface of the α -amylase to increase the overall [hydrophobicity] hydrophobicity of the α -amylase and/or to increase the overall numbers of methyl groups in the sidechains of said solvent exposed amino acid residues on the surface.--